Primroses
Primroses
The Quarterly of the American Primrose Society

Volume 65 No 1 Winter 2007

The purpose of this Society is to bring the people interested in Primula together in an organization to increase the general knowledge of and interest in the collecting, growing, breeding, showing and using in the landscape and garden of the genus Primula in all its forms and to serve as a clearing house for collecting and dissemination information about Primula.

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Front Cover: Geoff Nicholle has recreated the double cowslip from Elizabethan times in his plant 'Katy McSparron' shown on our front cover.

Back Cover: Sharron Lobaugh painting primulas in her garden in Alaska, photo by Marion Simpson.

This Winter issue of the quarterly focuses on hybridizing and hybridizers, with some micropropagation included. Growers always want the new and different in their garden, and without hybridizers, how would they get these new plants? We must be grateful for people like Geoff Nicolle, who recreated the double cowslip known in Elizabethan times, shown on the cover. Our own Rosetta Jones was working on double Juliana primroses in the last few years before she passed away in 2005. They are very attractive little plants, low-growing with double pom-pom flowers in pretty colors. Her remaining plants have been taken in by other growers and hopefully will be seen blooming again.

The Editorial Committee proposed the theme of this issue, with inspiration from Susan Gray. The next issue will be on species Primula, so look forward to this issue. There have been some serious delays in publication due to moving the production from Alaska to Massachusetts and finding a new printer. Straightening out the mailing permit proved a major hurdle – who would have thought? But by the spring issue the quarterly should be back on schedule. Your patience is much appreciated.

Maedythe Martin
Editorial Committee

PRIMROSES • The Quarterly of the American Primrose Society

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Special Editor for Winter 2007 Issue: Jane Guild, Sooke, BC email@janeguild.com
President's Message

ED BUYARSKI

Greetings folks; spring approaches rapidly- I've gotten the first inquiry about keeping supermarket primroses alive and it's still January! The seed list is in your hands and on the APS website and some of those leftover seeds from past years in my refrigerator have been planted too. Some of my leftover bulbs have also been planted in pots while my gardens are still under 18 inches of snow. I hope that the snow will be gone by the time of our National Show.

Please do renew your memberships now and enjoy another year of the APS Quarterlies and great information available on our website along with the Seed Exchange and get the Digital Edition of the Pictorial Dictionary of Primula as a free bonus. Send your suggestions, articles and photos to Maedythe Martin at martin951@shaw.ca who, along with her daughter Jane Guild, are doing a great deal of work to assist Matt Mattus on the Quarterly.

A friend of mine just mentioned today that he and his wife saw - and photographed - Primula magellanica near Tierra del Fuego while on their annual vacation adventure. I plan to have him write about it in a future short article.

Please help us make APS better -- contact me or any other Board member to offer your name as a volunteer: become a Board member, or even President of this fine organization.

Ed Buyarski
John Adrien O'Brien was born in Bronxville, NY on Feb. 22, 1929. After high school, he enlisted in the US Air Force and became a meteorologist in Anchorage, Alaska. He married Marilyn Murray there in 1948. John lived and worked in Alaska as a meteorologist on Annette Island and Juneau, a commercial fisherman on his own boats, and he eventually retired as a purser with the Alaska Marine Highway System.

John had a great love for gardening and shared many of his plants with others over the years. He had a sizeable vegetable garden in his back yard that was gradually taken over by primroses in later years. His success with them led to spring time plant sales of hardy primroses and other perennials which is how I met him.

One day in early May I noticed a small sign for a plant sale with an arrow pointing up the street. Though I was late to find much of a selection, John invited me to see some of his primroses and told me about several that I ought to try growing because they did so well in Southeast Alaska! I went home with a few along with an invitation to come to a meeting of the Juneau Primrose Group to learn more. John was one of the founding members of the Group and was really enthusiastic about the American Primrose Society. He was the APS Slide Librarian for many years which certainly helped him learn more so that he could give slide programs about different Primula sections to the Juneau Group. The auriculas were probably his favorites and he found that they thrived in Southeast Alaska and even in the Yukon where he and his wife had a summer cabin.

John's love of Primula denticulata was also recognized by the Juneau Chapter in his later years with the dedication of a Chapter Trophy for the Best P. denticulata.

John is survived by his wife Marilyn, two daughters, two sons, one brother, four sisters, many grandchildren and great grandchildren and nieces and nephews.

Ed Buyarski

The American Primrose Society has put me in touch with a number of people that have turned into good friends. One of these is Geoff Nicolle. I first heard of him in the 1990s when he had applied for a grant to come to the United States, an effort that didn't materialize. But once I was in Britain, a few years later, I remembered Geoff and his interest in auriculas and looked him up. We struck it off from the beginning, he and his wife, Sonia, and I. We've had a number of long, lovely chats, sitting in his snug sitting room at Rising Sun Cottage in Nolton Haven, almost as far west in Wales as you can go.

Some years later, Geoff did come to North America. We were able to arrange for him to come and speak at the American Primrose Society National Show held in Victoria in 2004. Everyone here really enjoyed meeting Geoff and Sonia, and I believe they had a super holiday out West. At the time he came to speak, he was holder of the National Collection of Border Auriculas for the National Council for the Conservation of Plants (NCCPG) in Britain. This charitable organization is an offshoot of the Royal Horticultural Society, and was created to help prevent the loss of plant variety within the horticultural world. Geoff held his collection for over 20 years. During this time, he also followed another interest in "old" plants: he recreated some of the primula from Elizabethan times, as seen in Parkinson's Paradisius. Most
particularly, he developed a double cowslip.

How did Geoff become interested in primula and auriculas? As a head teacher in the Welsh village of Rosemarket in the 1960s he was invited to tea in some of the older villagers' houses, one by one. He noticed they had true cottage gardens, many of which contained auriculas. Asked what they were, the villagers called them "Racklers", and were happy to press a plant on the new teacher.

In Rosemarket, there was one house that had a whole border of the village's one variety of "Racklers". But one day, walking by the house, Geoff found the border gone - the elderly couple had passed away, a new owner had dug up the bed, and Geoff found a motorbike where the auriculas had been. This made him realize he wanted to preserve the old auriculas to be found in the cottage gardens throughout the UK.

Like many auricula growers, Geoff started with an interest in alpine plants, but this incident focused his attention. He started to write around and track down old varieties of auriculas. Others wrote to him, supporting him in this interest, and an informal group of people, saving old plants, developed. One of the people he contacted was Mary MacMurtrie in Scotland. She was a wonderful botanical artist and was an elderly lady when Geoff got to know her. She had a long life, and Geoff tells me he got a Christmas card from her that she was well and still growing auriculas at 101! She shared some old varieties of border auriculas with him.

When Geoff retired, they moved to Rising Sun Cottage in Nolton Haven, a house that had once been a pub. It is situated on a stream, with hillsides behind the house dotted with Tenby daffodils in the spring. The little houses on the coast are small, square and box-like, much like the houses in the Maritimes in Canada, not a surprising thing, for many sailed to the "New World" from this area.

The stream turned out to be a mixed blessing, for while it is picturesque, it over-ran it banks in one severe spring flood and carried away many of the plants Geoff had sited along its banks! Geoff was rescuing and replanting auriculas and primulas for weeks. He managed to rescue enough, and was able to go on adding to his collection at Rising Sun Cottage, becoming the holder of the National Collection of Border Auriculas, with about 140 named border or garden auriculas at the peak of the collection. This is an award of status to the holders of large specialized collections, and carries a responsibility to preserve, grow, propagate and document the plants. Geoff grew his auriculas in large raised beds, bordered with thrift plants in the Elizabethan tradition, but kept another plant in the greenhouse, and a spare in another place. He has just had a second retirement, and has given the bulk of his collection to the new National Botanic Garden of Wales. The auriculas are now in the care of Robin and Pat Fisher, who put on a display of the plants each spring in the new auricula theatre they have created at the National Botanic Garden in Llanarthne, near Carmarthen. Geoff says it is a relief now to be able just to grow the plants he likes, without the responsibility of keeping the formal collection going.

As mentioned earlier, Geoff had seen a facsimile of the old primulas from Elizabethan times, and somewhere along the line, determined to try and recreate them. He started by crossing a cowslip with a poor form of a hose-in-hose polyanthus. Once he had seedlings, he kept crossing them with themselves, and finally, after more than a decade, began to get all the old forms, the hose-in-hose, the Jack-in-the-green and the double cowslip. The best double cowslip he named after his only granddaughter at the time, Katy McSparron. It went into micro-propagation and can be...
Geoff has many talents, but we are grateful that gardening is one of them, and that his interest in the old primulas and auriculas resulted in a large and irreplaceable collection of these historic plants, which can be enjoyed today.

New Double Auriculas: Crossing ‘Helena Dean’ x ‘Prometheus’

DEREK SALT

I have been breeding double auriculas for over twenty-five years. In that time I must have made over three hundred crosses, of which there is little doubt that the most reliable so far has been ‘Helena Dean’ x ‘Prometheus’. It has given me the “Lincolns” - ‘Lincoln Bullion’, ‘Lincoln Chestnut’, ‘Lincoln Spice’, ‘Lincoln Harmony’, ‘Lincoln Charm’ and ‘Lincoln Glow’. Many seedlings have been given to other growers and named by them. Several thousand seeds have also been given to a number of growers in a number of countries, some of whom have raised quite nice plants; Mr. Harry Leighton of Tyne & Wear in the UK has had a superb yellow that he has named “Googie”. Harry also gave some of his seed to Mr. John Gray, who raised a very good brown that won the seedling double auricula class at the NAPS Northern show at Cheadle in May 2005.

Let us begin by looking at the parents, as the pedigree of both parents is critical in raising a good new variety. This is as important in breeding auriculas as in breeding other plants and animals.

‘Helena Dean’ (1979), the seed parent,* was raised by the late Len Bailey from ‘Jayne Myers 1’ x ‘Sarah Lodge’. ‘Jayne Myers 1’ was a ‘Mary’ x Barnhaven seedling. It died early on but before it did Len pollinated it with the dark blue ‘Sarah Lodge’, itself a Barnhaven seedling raised by Ron Cole of Lincolnshire. Little is known of its parents but the most popular pollen parent at that time was the old British double ‘Watt’s Purple’. As ‘Sarah Lodge’ was a Barnhaven seedling, it was almost certainly line bred and would have mostly blue/purple genes. ‘Helena Dean’, a pale yellow double, has a good strong stem and anthers that are easy to remove; pollination is therefore relatively easy. The seed germinates well and the seedlings grow quickly. It is in many ways the ideal seed parent. Experience over the years has shown that it does produce seedlings with good strong stems and footstalks and is compatible with pollen from most varieties. Breeders like Ed Pickin and his daughter Laura have used it for most of their work and have produced ‘Funny Valentine’ (a well grown plant of this will beat, on its day, any other variety), ‘Lady Day’, ‘Satin Doll’ and several others.
The pollen parent is as always, critical, and should be smooth-petalled and as near to a full double as is possible to increase the number of doubles in the seedlings. ‘Prometheus’ (1992)* is a more recent variety raised by Dr Martin Sheader. Its parents were (‘Rodeo’ x CY7) x ‘Pineapple Poll’. ‘Pineapple Poll’ was from ‘Cortina’ x ‘Lady Jane’, so we have a gold-centered alpine, a red self, and somewhere there must be the Sheader’s MYD ‘ (‘Monster Yellow Double’), which when put on a single gave doubles in the first generation! One characteristic is a rather short stem that can be passed on to its seedlings, so we always have the possibility of a plant with very short stems. In a cross with ‘Rebecca Baker’ we had one plant, a yellow with almost no stem at all. This cross also produced plants with good stems like ‘Cardinal Red’, ‘Stromboli’ and ‘Vesuvius’.

So in the cross we have yellow on both sides and blue on one and red on one. This should give lots of yellows, some browns (i.e. red + green) and possibly a pink or deep red. I have found that to get a good bright red it is best if there is no blue or purple in either parent.

In 1999 I did the cross and in 2001 flowered about eighty seedlings. There were lots of doubles in yellow and brown shades and one lone pink double. There were also some singles and many semi-doubles. Stems varied from normal to practically none.

We selected four or five yellows and a couple of browns and the pink to grow on for another season. We rarely name a seedling until it has flowered three times, as experience has shown that even after two years the variety may not be stable: it may improve or get worse, normally the latter.

After three years the following were named:

‘Lincoln Bullion’, a golden-yellow double with a good strong stem which sometimes can open ten to twelve pips. It is also a week or so earlier than many varieties, so it is obviously a good one for a late (slow) season. This proved to be the case in 2006, which was a very late season in the UK. The variety won premier in the double class in the Southern auricula show at Datchet. As one of a pair with ‘Funny Valentine’ they won the two-plant class for Hazel Wood at the Northern show at Cheadle.

‘Lincoln Sparkler’, a bright lemon yellow double with a tallish stem, which can open six or seven pips.

‘Lincoln Glow’, a good bright yellow with a good stem opening over five pips.

‘Lincoln Harmony’, a deep yellowish double, not as good as ‘Lincoln Bullion’ and slow to offset; it can open seven to eight pips.

‘Lincoln Chestnut’, a superb brown that offsets quite well and is becoming popular with exhibitors. It can open up to ten pips. This was in the winning four at Cheadle in May 2005 when shown by Keith Leeming.

‘Lincoln Spice’, a brownish double, paler than ‘Lincoln Chestnut’, which needs good light to keep its footstalks short. It offsets fairly slowly but can open eight to ten pips when well grown. This is possibly the only variety from the cross that is difficult to grow to show standards.

‘Lincoln Charm’, the only pink from the cross, can open a lot of pips. Not the best pink around but good for a multi-plant class.

Since we raised these plants we have done the cross a number of times and passed on the seed so that growers in a number of countries, including you in North America, may have the opportunity of growing their own good doubles. The seed parent ‘Helena Dean’ is not generally available outside the UK.

The cross ‘Helena Dean’ x ‘Prometheus’ had been done previously by Ed Pickin. He expressed some surprise when he saw the quality of our plants. We must always remember that in crossing complex hybrids like double auriculas there are many thousands of possible combinations, each of which will be at least slightly different in some way. It can sometimes happen that no good seedling will be found, even when several thousand seeds have been grown. I have not seen or heard of another like ‘Lincoln Bullion’, though there are a number of browns similar to ‘Lincoln Chestnut’ and ‘Lincoln Spice’.

I am always interested to hear of other growers’ results with seed from this cross. They might like to send their comments via the link on our website which is: http://dereksauriculas.mysite.wanadoo-members.co.uk

* Dates as given in “Auriculas for Everyone” by Mary A. Robinson.
Chapter Reports

The American Primrose Society is only as strong as its primula growers! When these intrepid gardeners join into Chapters it is a great phenomenon – plants are exchanged, growing advice is given, information is shared – in general, advances are made.

If you live in an area where there is an APS chapter, do try and attend a meeting. The times and places are listed on the APS website whenever possible (www.americanprimrosesociety.org). If there is no group in your area, think about starting one! It only takes one person to contact others with like minds. Don’t feel you have to be ambitious; just have one meeting, or one event in the spring to bring in your plants for others to admire. One could even take a page from the Florists of the last century and meet at the local pub with your friends to compare your favorite plants!

It is a great stretch from the primula plant in your garden to the pages of the APS quarterly, or is it the other way round? But there wouldn’t be an APS or a quarterly if there weren’t interested primula growers. Do make a small effort and the reward will be worth it. Here is a rundown of the activities of some of the APS Chapters and affiliated groups over the last year.

New England Chapter Report
The year threw a few challenges at the New England Chapter, but members worked hard and well to meet them, in addition to enjoying regular meetings and Chapter events.

When it appeared that the National APS Show would have no sponsor for May of 2006, New England member Joseph Phillip volunteered to organize it at the Tower Hill Botanic Garden near Boston, complete with well filled show benches, pre-show dinner, plant sales, presentations, garden tours, gala banquet, and all the treats and trimmings which make these events memorable and enjoyable.

A Show planning meeting in January was followed by a Chapter gathering in February, with an update about plans for the National Show, information from Amy Olmsted about what would be involved in participating in the Connecticut Flower Show in late February, and a discussion led by Rodney Barker about planning a display at the New England Flower Show in Boston in early March. A brief seed-sowing demonstration was given by Amy Olmsted. Attendees at the late winter Connecticut Flower Show in Hartford saw an impressive display of photographs and educational information about Primulas for the Northeast, in addition to live plants, thanks to the efforts of Amy Olmsted, Elaine and Alex Malloy, and others who contributed time, expertise and plants.

The even larger New England Spring Flower Show in Boston resulted in a very special honor. The display featured early March Primula and other plants organized by Rodney Barker and Matt Mattus, with help from Susan Schnare other members. A special award, ‘The Advisor’s Award for Horticultural Excellence to a Group or Garden Club’ was a silver bowl, presented to Rodney and Matt at a dinner hosted by the Massachusetts Horticultural Society, sponsors of the Show.

Those who were at the National Show in May were blessed with warm bright weather, informed by knowledgeable presenters, provided an excellent selection of plants to view or buy, and were given a rare opportunity to ride around New England on an honest to goodness yellow school bus touring gardens and nurseries. All in all, great fun.

Our summer meeting was held in Amy Olmsted’s remarkable garden, with plant tour and lunch followed by Rodney Barker’s description of his sowing, germination, and transplanting methods.

In September, it seemed the Seed Exchange would be canceled for a year, but Jacques Mommens, Judith Sellers and a few others undertook the mission at the last moment, and produced a fine list of choices once again. As of late January, the Exchange is progressing well, with a surplus round planned for very late winter.

Our October meeting was postponed until May 2007, as we discovered it was unwise to schedule gatherings involving long driving times so late in the year.

We are all looking forward to our next meeting on February 10 at Berkshire Botanic Garden, to be followed again this year with our regular meetings, participation in both the Connecticut and New England Flower shows, and a Chapter Show in May.

There is no boredom for anyone wishing to find rewarding activities involving Primula in New England.

- Judith Sellers

B.C. Primula Group Report, 2006
Our meeting in May was brought forward to the end of April to be combined with a trip to Victoria and a joint meeting with the small primrose group there. That was the last event for the 2005/06 year. It included a visit to Carmen Varcoe’s garden in Victoria to see candelabra and other summer primroses growing in situ.
In the summer we met to hear a presentation by visiting alpine auricula expert, Les Allen, from Britain. At each meeting we have between eight and twelve members attend. This was an interesting and colorful presentation that we all enjoyed. See the following description by Ian McGowan on the speaking tour by Les.

September 10 was the first meeting of the 2006/07 season and Michael Plumb and Rhondda took the meeting as President Maedythe Martin was away visiting Europe. Cleaning seed was the first topic of discussion, and Michael mentioned four ways that were used by members. The static charge on a plastic ball-point pen was perhaps the most unusual. A discussion of types of pots to use in potting auriculas and primroses was the second topic, and the third was a plant profile of the Section Sphondylia, the first Section listed in Richard's book. Michael's inspiration was an article by Walter Blasdale, noted authority in California in the 1940s and 1950s, in an old APS Quarterly (Vol. 7, Issue 1, July 1949). Sounds like it was an interesting meeting.

The November meeting gave members a chance to see a DVD on members bringing in and staging their plants for a NAPS Northern auricula show. Terry Mitchell had videotaped it in 2005 – very impromptu. We hope Terry might do another one with a voice over, as the plants were very intriguing, but it was hard to know which ones they were. The program was a short presentation on Alexander Marshal, botanical artist from the 1650s. Maedythe brought back the DVD and a monograph on Marshal from England where she had visited friends and attended meetings in September.

There was a demonstration of the electronic reproduction of the APS Pictorial Dictionary of Cultivated Species of Primula that the B.C. group is sponsoring. It is hoped to have it finished and posted on the APS website in January. A copy on CD will be available to members who request it.

We have a program outlined for the coming year, which will be noted on the APS website. Anyone in the Greater Vancouver area is welcome to join us. We meet on the second Sunday in January, March, June, September and November. At present the meetings are at Mandeville Gardens on South West Marine Drive. We'd love to have you visit.

-Maedythe Martin

Ian McGowan’s Report

Ian McGowan, a new keen auricula grower in the Pacific Northwest, organized a speaking tour by Les Allen from England. There is no formally organized group yet, but it sounds like primula and auricula growers on Whidbey Island met on this occasion to hear about auriculas.

Continued on page 34...
GEOFF NICOLLE’S AURICULAS

Top: ‘Broadwell Gold’, one of Geoff’s favorite border auriculas
Bottom: Beds of auriculas edged with box in the traditional manner

Top: Boarder auriculas in Geoff’s garden
Bottom: Double cowslip ‘Katy McSparron’ Photos: Geoff Nicolle
DEREK SALT’S ‘LINCOLN’ DOUBLES

Bred from ‘Prometheus’ and ‘Helena Dean’ are a collection of Derek Salt’s double auriculas in his line called ‘Lincoln’.

Very few pinks have shown up in the crosses from ‘Helena Dean’ and ‘Prometheus’ but ‘Lincoln Harmony’ by Derek Salt (above) is one. The little picotee seedling by Maedythe Martin (left) is another pink from this cross, from seed given to her by Derek Salt, and, oddly enough, has bloomed the last two Novembers.

Derek Salt selected the double yellow ‘Helena Dean’ (left) and dark red ‘Prometheus’ (below) as pollen parents. As a gifted hybridizer, Derek was able to find pollen in the flowers, even though this can be difficult with double auriculas. The classic form of ‘Helena Dean’ carries over to the offspring and the color breaks come from the red of ‘Prometheus’.
Alaskan artist Sharron Lobaugh paints *Primula*
Raising Primroses on Admiralty Island

CLIFF LOBAUGH

Admiralty Island National Monument is located in southeast Alaska, approximately 15 miles southeast of Juneau and lies entirely within the Tongass National Forest. Major marine transportation routes and boating waterways surround the island, including Stephens Passage to the east, Chatham Strait to the west and Frederick Sound to the south... The National Monument encompasses about 1 million acres... The majority of the island is spruce-hemlock rainforest interspersed with small areas of muskeg. The timberline is typically 2000 to 2500 feet. Above the timberline the forest gradually changes to alpine-tundra with rock outcrops and permanent to semi-permanent ice fields.

Source: U.S. Forest Service Website

On the East Side of Admiralty Island is an organic garden within a 90-acre homestead that I have cultivated since 1971. My one acre garden blends with the wilderness of the Admiralty Island National Monument, which was created in 1980. In 1918, William L. Baney received a deed to this homestead from President Calvin Coolidge.

Source: U.S. Forest Service Website
Baney supplied most of the fresh produce for the new mining town—Juneau Alaska. I grow primroses in 80 foot rows among the vegetables and fruits. Our long summer days speed up the growing process and it takes our whole family to keep up with the work. My wife, Sharron says: “painting primroses is easier than weeding.” An established watercolorist, she recently exhibited paintings of fifteen different primroses at the Juneau Arts and Humanities Council Gallery. All of the paintings are paintings of primroses grown in our Admiralty Island Garden.

While it is true that wild primroses grow in almost all countries, Juneau, Alaska, has one of the most ideal climates for them. Indeed, there are more Juneau members of the American Primrose Society per capita than in any other place in the world, and the city has adopted the primrose as its official flower. What makes Juneau’s climate so ideal for the genus *Primula*? For starters, primroses like rain and don’t mind being dormant during the winter. Also, they enjoy the typically overcast summer days when the temperatures range from 55 to 60 degrees in S.E. Alaska. These nearly perfect conditions allow *Primula* to multiply and sprout everywhere. The rare long periods of drought bother them, however, because they like to keep their “feet” wet. My experience with primroses is virtually year round.

- **JANUARY & FEBRUARY** is the time to start seeds. I recommend planting seeds in either flats or 4” plastic pots, filled with potting soil. I scatter seeds sparingly and cover with vermiculate. The seeds are placed outside to get some “snow” and are covered with remay or some type of cloth. The seeds need to freeze. After a cold spell I bring them inside to 40-70 degrees, leave the cloth on, and keep the seeds moist. After the seeds sprout I take the cloth off.

- **MARCH & APRIL** - When two or three primary leaves have developed, I can transplant to a cold frame outside. This is also when I transplant seedlings and divide the year-old, or older, primroses coming up in the garden. However, I don’t divide the plants in the garden nor plant the seedlings unless the snow is completely gone. As soon as the snow is gone and the boughs can be removed, some varieties, such as yellow polyanthus (*P. veris, P. vulgaris*) and “pompoms” (*P. denticulata*), pop up out of the snow from the previous summer’s plants with new blooms. After all the transplanting is done, I rototill and mulch rows with lots of seaweed.

- **MAY & JUNE** are the months of bright colors. Primroses display vivid splashes of every color imaginable. Varieties of polyanthus, *P. denticulata, P. veris* and others exhibit strong contrasts as well as subtle shades.

- **JULY & AUGUST** are the glory months for the bog, or woodland, primroses such as: *Primula alpicola, beesiana, bullesiana, bulleyana, cockburniana, cortusoides, elatior, viaii, florinda, japonica, sieboldii*, and *sikkimensis* The summer warmth urges primroses to smell better than other flowers, or commercial perfume, in my opinion.

- **SEPTEMBER & OCTOBER** months find many bog/woodland primroses still blooming. *Primula florinda* dominate the fall garden. These can have blossoms of a strong red or orange outside with delicate yellow or lavender shades inside. Each year the plants grow taller and taller. Before frost, it is time to collect seeds for the next year.

- **NOVEMBER & DECEMBER** are the months to gather spruce and hemlock boughs; laying them over my beds to protect the primroses from snowfall. The seed exchanges among primrose growers take place and the catalogs boast more varieties to choose from. Soon, it will be time to start the seeds, and the cycle begins once again.
Sharron and Cliff Lobaugh are long time Juneau residents. Cliff was Juneau's veterinarian for nearly 40 years. Sharron is a well known local artist who taught art at the Juneau Douglas High School and later worked for the state of Alaska. The Lobaugh’s are now retired and while both love to travel, Sharron, in particular, travels the world to live her dream “to paint and travel”. She likes to paint “plein air” or outside wherever she travels, whether to China or Admiralty Island. She says “What I see tells me what and how to paint. My style is unique to where I am.” In February, 2006, Sharron presented “Primula” at the Juneau Arts and Humanities Council Gallery. The show featured 15 paintings of primroses painted “plein air” at the Lobaugh garden on Admiralty Island. Sharron paints every day for 3 hours, her retirement goal. Cliff tends the Admiralty Island garden and enjoys hunting trips to the Island with his grand kids. He is very generous with the bounty of the garden, making “kale pesto” by the gallon, much of which is enjoyed by members at Juneau Chapter meetings. And the annual Juneau Chapter Plant Sale would not be nearly so successful with out many donated primrose plants from Cliff’s Island garden.

On pins and thrums

When I asked Jay Lunn if he had any news or notes to include here, he wrote an email back that he initially thought I was asking about the concept of pins and thrums in Primula. Then he said, “Thinking about this some more, how many folks really know about thrums and pins (the feature’s namesake)? Richards has a lot to say about this in his "Heterostyly and Homostyly" section of his book Primula. Most of us think of this as a characteristic only of Primula, but that is far from the real world. Richards mentions other Genera on page 42-43 (2003, 2nd edition), but did you know that Kalmiopsis leachiana (an Ericaeae) is also a heterostyly?

“Members should be warned that they won't find thrums and pins in all species of Primula, and not just thrums only unless you’re just a hybrid auricula grower like yourself! So, the homostyles should be mentioned, too.”

So a quick rundown: a thrum flower has only the pollen-bearing anthers showing in the center of the flower. A pin flower has the pistil showing and the anthers are down in the tube of the flower. Florists, growing plants to standards of excellence, have been selecting and showing thrum only flowers since the 1700s.

Heterostyly is when a flower has either a pin or a thrum flower. Homostyly is when all of the flowers have the pistil and the anthers at the same height, both showing in the tube of the flower, and these are always self-fertile. As a hybridizer, you may want to know more about this topic, as the outcome of some crosses can be predicted. Have a look at Richards’ book, Primula, for more on this topic.

Try this organic pesticide

When I asked for any contributions for this section at the B.C. Primula Group, they suggested mentioning neem oil. I hadn’t heard of this, so looked it up on the trusty web, and there is lots of information. Neem oil is from a tree, Azadirachta indica, an evergreen that grows in India. It can be used as a pesticide for aphids, mealy bugs, cabbage worms and some
beetles. Because it is non-toxic to man and animals it is good choice for home gardens. One source I looked at said use one teaspoon of neem oil diluted in one quart of water, with a drop of dish water detergent to help it spread. Check out your favorite site on the web for more information.

A helpful publication for auricula hybridizers

A new booklet, "Raising new varieties of auriculas" by Derek Parsons is available now from England. It is only 28 pages, but contains lots of helpful information for the would-be auricula hybridizer from the man who moved striped auriculas into the 21st century.

Striped auriculas were common in the 1650s but disappeared through the centuries that followed. Allan Hawkes started to recreate them in the 1960s and 1970s and Derek started with Allan's seed and moved the project forward with great success. Here in this little book he tells you how he did it, and how you might select plants to start.

You can get a copy by writing to David Tarver, 9 Church Street, Belton, Loughborough, Leics, England LE12 9UG. or e-mail: david.tarver@btinternet.com. The cost is about three pounds.

Maedythe Martin

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Micro-propagation at B&B Laboratories in Mt. Vernon, Washington

ILSE BURCH

On Wednesday, December 13, 2006 Claire Cockcroft and I traveled to Mt. Vernon, Washington to investigate a tissue culture laboratory in the hopes of describing it for the readers of the APS Quarterly. Of course, at the time we visited, we had absolutely no idea of the weather we would suffer on the following day -- or else we would have stayed home and bought a generator! The high winds at the West Coast took down a number of trees in my area and power was out for 8 days!

Except for rain and gusty winds, the day we visited the lab was a typical winter day. The building that houses B&B Laboratories is a one story modern building with lots of windows. There is a greenhouse behind the building across an alley. Everything is very clean and neat.

We were met by Sole Switzer who showed us the facility. Sole gave us each a copy of the color pamphlet that is given to prospective clients, and he patiently answered all of our questions.

My first impression of the inside of the laboratory was that of entering a public swimming pool -- the whole place smelled of chlorine. Everyone was wearing white lab coats, facemasks and rubber gloves, and working under what I'm sure were airflow hoods. The airflow hoods continually pull air
up and out of the laboratory, reducing the likelihood that pathogenic bacteria and molds will contaminate the plant materials. Sterility is the order of the day.

Tissue culture is the art and science of cloning, or vegetatively propagating plants in quantity from very small pieces of plant tissue, perhaps just a single bud. (Cloning by cutting is more easily done but yields only one plant per cutting under ideal circumstances.) In this way, each plant is reproduced many times, making rare plants available to the largest number of people in the shortest period of time.

Tissue culture is done in stages. In the first stage, the new plant material is cleaned and made sterile, cut into tiny pieces and then introduced into a special nutrient solution to be multiplied. The cells are held in special containers, in a temperature-controlled room, and under lights.

The second stage of tissue culture continues the multiplication of the tiny plants. This is done by cutting the material, placing it in special containers and then growing it in special nutrient solutions under lights. The environment is strictly controlled. The cutting and growing, done on a 42 day cycle, may be done many times until there are enough plantlets to make up the number of plants that are required for the order. During stage three, hormones are introduced that induce rooting. The plants are separated and grown under lights for several weeks. B&B Labs will ship these tiny plantlets at this stage. They are carefully removed from their nutrient solution and specially packed for shipping. They are not growing in soil at this time, and require quite a bit of care to be ready for the garden or for sale.

Stage four plants are removed from the nutrient solution and placed into a sterile soilless mix and grown in the greenhouse for several weeks. They are grown on in little plastic cell packs and they are sold in units of 72 plants per cell pack. At this point they are really pretty sturdy little plants, although they are still not ready to be planted into the garden.

Several prominent members of the APS have used B&B Laboratories to clone their exciting unique primula plants so they could be sold to the public. One of these was Rosetta Jones, to multiply stock of her double primrose 'Rosetta's Red'. If there were no way to clone plants this efficiently, it might take several years or even a decade to produce enough of one cultivar to sell commercially. If you, the reader, were to find a really nice unique plant in your garden or in a batch of seedlings, you could, in fact, patent your plant and then arrange to propagate it using B&B Laboratories. I’m absolutely sure that there are many plants out there in private gardens that are unique and deserve this kind of treatment. And it can be financially rewarding for the gardener.

If you decide that you want to order plants from B&B Laboratories, they suggest ordering as much as a year in advance, because it takes time to propagate a plant from tissue culture. There is a minimum order from B&B Labs of 200 plants in stage 3 (just rooted, not on soil yet) and 72 plants in stage 4 (little plants on soil in plastic cell trays).

My trip to B&B Laboratories made me resolve to keep my eye open for new, unique, and interesting plants that might be good enough to patent and propagate for sale to the public. I think it would be wonderful if more of us did this -- it would make all of our gardens more interesting!

Their address is B&B Laboratories, 17618 Dunbar Road, Mount Vernon, WA 98273 Phone: (360) 424-5647 FAX: (360) 428-5981 or look at their website: http://www.bandblabs.com/
A Visit by Expert Les Allen

The Pacific Northwest was feted with a speaking tour by Les Allen who came from across the pond to support the growing number of auricula enthusiasts at the West Coast between Seattle and Vancouver.

Les is one of the pre-eminent growers of alpine auriculas in England and was featured in last April's issue of Gardens Illustrated magazine in an article on auriculas. His mentor was Arthur Delridge, one of the most successful growers and exhibitors of alpine auriculas. Les has a collection of over 500 plants and was awarded National Collection status by the National Council for the Conservation of Plants (NCCPS) in the UK. Les is a member of the National Auricula and Primrose Society - Midland Group, and a judge in the UK, and was awarded the Society's Silver Medal in 2003.

The main event of his tour was at Seattle's Center for Urban Horticulture, sponsored by the National Alpine and Rock Garden Society where he reviewed growing techniques and standards of excellence for show varieties and presented slides of the many wonderful plants available. Les also went to Vancouver B.C. and, of all places, Whidbey Island where he packed the house at the Greenbank Garden Club. Les and his wife, Mavis, were well received and now have a fan club of addicted growers. A trip to the Northwest wouldn't be complete without a venture to Rick Lupp's Mt. Tahoma Alpine Nursery. You should have seen these two plantmen picking over Rick's collection and oohing and ahhing and figuring how to trade some of the newest of these super plants.

Les also presented his "Classified List of Auricula Cultivars" to the Miller Botanical Library in Seattle. This is a list of over 3,500 auricula cultivars giving their names and history. Names were collected from books, articles, hybridizing records, bulletins and society yearbooks and compiled into a single alphabetical list. This is the definitive list for collectors. It is available to the public in the Library's collection and fills out an excellent selection of reference books on auriculas in the Miller Library.

- Ian McGowan

The Juneau Chapter publishes a newsletter with all their activities. For a copy contact President Robert Tonkin, 3155 Pioneer Ave., Juneau, AK 90801 or primroses@gei.net.

The Narrows Chapter had no activities in 2006. However there may be a spring event in 2007. Stay tuned.

We hope to have reports from the Eastside, Tacoma and Doretta Klaber chapters in our next issue.
warrant its use in fertilizing many plants and there is need to hold it over, the pollen remains potent for days when put in a tightly covered jar and stored in the refrigerator.

It is unnecessary to remark that pollination should be done on a clear day, but even the clearest days in April develop sudden showers, in which case bagging will prevent the rain washing the pollen. Each plant that is pollinated should be labeled according to the cross made. In this way the identity of the seedlings is kept for future breeding purposes.

One of the marks of a well-bred primrose is the thrum-eye, the short-styled type of bloom that has the stigma hidden in the tube and the anthers in full view at the entrance. When crossing a thrum with a thrum, a very large percentage of thrum-eyed children is a natural result. This is called "illegitimate" pollination. Two other illegitimate forms of pollination that are possible but have little or nothing in their favor are a cross between two pin-eyed or long-styled types, and self-pollination. The first would be flying in the face of good form and the second, if continued for any length of time, would result in a loss of vigor.


Establishing a strain of double primroses shouldn't be difficult, with the knowledge we have available on the how and why of their behavior under hybridizing.

Donald O'Connell, in his article on "Hybridizing for Double Primroses" in the October 1945 issue of the A.P.S. Quarterly, explains why many doubles have no pollen and are incapable of setting seed. Since no doubles appear after the first cross when pollinating with pollen from doubles, every plant resulting from this cross should be saved as a seed parent to be pollinated with double pollen. The next generation is said to give twenty percent doubles. This is hard to believe, and most growers are not so optimistic, and feel quite lucky if they get five per cent.

It is advisable to use acaulis (vulgaris) for breeding. The Polyanthus crosses often result in floppy flowers because the double blossom is too heavy for the stalk and pedicel. With the acaulis cross a nasegay effect may be achieved with a compact mound of blossoms surrounded by a precise formation of leaves.

The chief problem will be in acquiring the pollen-bearing doubles. The old lavender and white are barren; Marie Crousse and an occasional yellow, or the old purple, Arthur Du Molin, will probably be the best sources of pollen.

No words can express the thrill and almost disbelief which assailed Rae Berry and me when we first saw the hundreds of unbelievably beautiful double primroses near Belleview three years ago. They were from seed from England, with a ten per cent guarantee for doubles. Our Society has slides which show these magnificent many-colored plants, and it is a good thing, because the plants were, for the most part, lost due to moving and a deep freeze which followed almost immediately after. We have tried to get seed from the same man in England, but have had no answer to our many letters.

All this goes to prove that it can be done. This is a challenge!

[Note: One of the possible sources for the double primroses mentioned in Lou's article was Hopleys plants of Much Hadham, Hertfordshire, England. When on vacation in England in 2000, my wife and I visited their nursery. While we were sheltering from a sudden rainstorm in one of their greenhouses, the young owner happened to come in to do some work. I quizzed him about all the double primroses that Hopleys were once famous for. Since it is a family firm, he knew of the famed doubles, but said that, alas, they were no more. He even asked us if we knew where he could obtain plants in order to revive the stock! Their website is www.hopleys.co.uk/]

Michael Plumb